

# County of Santa Clara

## Office of the County Executive

### County Communications




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CE07 040709

Submitted by: Joyce Wing  
Chief Information Officer  
Bert Hildebrand  
Communications Director

DATE: April 7, 2009

TO: Board of Supervisors

FROM:   
Emily Harrison  
Deputy County Executive

SUBJECT: Delegation of Authority for Agreements in Support of Regional Computer Aided Dispatch Interoperability Project.

### **RECOMMENDED ACTION**

Consider recommendations relating to the creation of a Regional Computer Aided Dispatch (CAD)-to-CAD System by County.

Possible actions:

- a. Approve delegation of authority to the County Communications Director, or designee, and to the Chief Information Officer, or designee, to negotiate, execute, amend and terminate agreements with Silicon Valley Regional Interoperability Project (SVRIP) and City of Mountain View as SVRIP fiscal agent, relating to providing hardware, software and project management services necessary to establish a countywide interoperable computer aided dispatch (CAD)-to-CAD data sharing and display system, in an amount

not to exceed \$2,681,000, following approval by County Counsel as to form and legality, and approval by the Office of the County Executive. Delegation of authority shall expire on April 6, 2014.

- b. Approve delegation of authority to the County Communications Director, or designee, and to the Chief Information Officer, or designee, to negotiate, execute, amend and terminate various agreements with cities, towns and public safety special districts in the county and with other entities or individuals that may be involved in the establishment and ongoing maintenance of a countywide interoperable computer aided dispatch (CAD)-to-CAD data sharing and display system, following approval by County Counsel as to form and legality, and approval by the Office of the County Executive. Delegation of authority shall expire on April 6, 2014.

### **FISCAL IMPLICATIONS**

There is no net impact to the General Fund as a result of the recommended actions approving delegated authority for agreements necessary to complete the proposed interoperable CAD-to-CAD project.

The Silicon Valley Regional Interoperability Project (SVRIP) Steering Committee and the Santa Clara County Fire Chief's Association have submitted a budget proposal for the first phase of the project in the amount of \$2,681,000. Of that amount, \$2,144,800 has been requested in federal grant funds. The required 20% grant match funding was approved by the Board and allocated to the County Communications Department during the FY 2009 Budget process.

SVRIP has been given verbal indication of the grant application approval, but has not yet received formal notification of award. If and when federal funding for this project is approved, the Communications and Information Services Departments will submit to the Board for approval a Request for Appropriation Modification increasing revenue and expenditures within their budgets to reflect the grant amount, which is expected to be \$2,144,800.

### **CONTRACT HISTORY**

The County currently has two contracts relating to SVRIP activities.

In 2001, a Santa Clara County Data and Radio Communications Network Joint Funding Agreement was executed by the County, all the cities and towns in Santa Clara County, San Jose State University, South Santa Clara County Fire District and the Santa Clara Valley Water District, to form the Silicon Valley Regional Interoperability Project (SVRIP). Each participating entity (Network Participant) contributed \$20,525.79 as seed funding for the project. The agreement has no term end date.

The agreement was first amended in March 2002, to allow the SVRIP Steering Committee to obtain consultants to conceptually design and develop an implementation strategy for a countywide interoperability system.

The agreement was last amended in November 2004, to redefine the purpose of the project

to commit the Network Participants to continue to design and implement a countywide radio interoperability and integrated data communications network system that can be implemented in each of the participating agencies at a cost savings to the jurisdictions. This second amendment also detailed the authority of the Steering Committee (e.g., retain professional services, purchase hardware/software, jointly apply for state, federal, and/or private funding grants, enter into agreements with other governmental agencies, etc., related to SVRIP interoperability solution(s)) and updated the

composition of the Steering Committee to reflect the addition of the County and others.

In 2003 an Agreement between the County of Santa Clara and the Network Participants for Installation and Maintenance of Radio Equipment for the Communications Interoperability Project was executed, which provided for County Communications technical services to install and maintain the countywide interoperable radio system known as "BayMACS" for the period June 2, 2003 through December 30, 2008 at maximum compensation of \$52,520. A 2004 amendment increased the scope of service due to expansion and enhancement of the BayMACS system and increased the compensation to \$106,835.

## **REASONS FOR RECOMMENDATION**

During daily fire operations, terrorism or man-made disasters, seamless integration and sharing of data and resources can save precious minutes and dramatically enhance interagency coordination. An integrated data sharing solution between geographically related communities is a significant unmet gap in emergency preparedness and response. At the moment of an incident or disaster, time spent calling for resources between unconnected and uncoordinated communities can slow response and recovery efforts. The future of emergency resource management is fully integrated CAD to CAD dispatching where neighboring resources are immediately visible to a dispatcher and capable of being dispatched to an emergency.

The Computer Aided Dispatch (CAD) systems used to track and dispatch field personnel and resources in Santa Clara County are not linked and have no way of sharing critical information; as a result dispatchers in the thirteen primary 9-1-1 centers do not have access to and can not readily monitor field personnel and resource information in neighboring jurisdictions and must often engage in time-consuming phone calls to share critical information and/or locate and request the dispatch of the closest available fire and/or medical resource.

Dispatch centers providing 9-1-1 alternate answer backup services must also contact the responsible jurisdiction by phone and relay 9-1-1 call information verbally rather than electronically, which prolongs the response to emergency calls.

No industry-wide standards have been developed and/or adopted by CAD vendors to enable interoperability between their products, which is the major challenge for this project. Based on local experience, most vendors maintain strict proprietary CAD system products that either lack or provide very limited system interface capabilities for sharing data with other CAD systems, as well as between their own systems operating on separate servers. In many cases when more advanced interfaces are made available, dispatch centers do not purchase them as an added option due to either limited project funds or the fact that the open and automated sharing of CAD data with other agencies is a relatively new concept.

This project directly supports the County Emergency Medical Services (EMS) Agency and ten Fire Agencies, which provide fire suppression, rescue, and medical response services amongst and between all fifteen cities and the unincorporated areas of Santa Clara County.

The first phase of the proposed interoperable CAD-CAD project will provide a standards-based integrated data sharing and graphical display solution where active events and resources are immediately visible to all dispatchers to allow for optimized resource management and improved response to emergency calls for service. It will also address the accepted premise that until the CAD software industry establishes and adopts interoperable standards that provide for CAD-to-CAD connectivity and data sharing, an interim solution is needed.

County Communications and County Information Services Department staff has been appointed by the SVRIP Executive Steering Committee to be the leaders in completing this phase of the project. Formal agreements with SVRIP and other jurisdictions will be needed to enable the County to manage the project to develop and implement

interoperable CAD-to-CAD fire and medical communications within the Santa Clara County. Various other agreements will be needed to procure services and equipment and to obtain access to other jurisdictions' CAD systems, which will be necessary in order to complete the project. Approval of delegated authority to negotiate, execute, amend and terminate such agreements will facilitate completing this phase of the project within the 12-month grant period.

Phase I identifies the required data elements, format, syntax and/or other specification necessary to complete Phase II (separate/future funding request), such that when translated by the RIIB (Regional Interoperability Information Broker) and delivered to the subscribing (receiving) agency's CAD system (via subscribe protocols and business rules programming) it will be accepted by the system without error and will react as if the data had originated from within its own native CAD environment.

Use of the Common Operating Picture developed during Phase I and subsequent subscribe capabilities to be developed in Phase II will provide dispatchers with valuable tools that will improve day-to-day operational efficiencies and eliminate or shave off valuable minutes (upwards of three minutes) off the response times of first responders by allowing dispatch personnel to send the most appropriate resources in the most efficient manner possible. This reduction in response time can result in lives saved and decreased property loss. It also will enhance cooperation and collaboration between first responders and dispatch operations within Santa Clara County.

The proposed design and phased approach undertaken through this effort by County Communications and the Information Services Department (ISD) is clearly leading edge, provides valuable tools and enhanced capabilities for public safety service providers, dispatch centers and/or other agencies responsible to manage day-to-day operations and all hazard emergency responses, and clearly reflects the complexity of achieving CAD-to-CAD interoperability between multiple disparate systems (see attached "Revised Proposal - FEMA Assistance to Firefighters Grant" for additional narrative on this project).

## **BACKGROUND**

In 1998, eighteen jurisdictions in Santa Clara County, representing about thirty law enforcement, fire and emergency medical services agencies, formed the jointly funded and governed partnership known as the Silicon Valley Regional Interoperability Project (SVRIP).

The goal of SVRIP has been to identify viable approaches and technologies that can resolve the various challenges to voice and data interoperability that prevent inter-agency coordination and communication between public safety agencies during daily operations and all-hazard situations, and where possible, implement solutions using grant funding.

Fire agencies in the county presently run 100,000-150,000 fire and medical calls per year. Approximately 28 percent of those calls involve multi-agency, multi-jurisdictional responses. SVRIP's Fire Data Interoperability Project was born from Santa Clara County Fire Chiefs Association's commitment to streamline the process of capturing 9-1-1 information and responding to incidents with the closest and most appropriate emergency resource. During the project's "proof of concept" phase for fire services, countywide ambulance transport and emergency medical services (EMS) were added to better reflect the close relationship between fire and medical services.

Currently, thirteen of fifteen jurisdictions within the county operate on thirteen standalone and disparate CAD systems, varying in age (less than 1 to 16 years) and system complexity based on their need to support law enforcement, fire, and/or emergency medical and transport services. The various CAD systems do not have equal capability, features or functionality, which adds complexity to the interoperability project.

Based on their performance during the initial proof of concept phase, and the tight twelve-month FEMA AFG grant funding timeline, County Communications and the Information Services Department have been asked by the SVRIP Executive Steering Committee to design and implement a phased CAD-to-CAD linked interoperability data sharing system with graphical display for countywide application.

### **CONSEQUENCES OF NEGATIVE ACTION**

If the recommended actions are not approved, the agreements, purchases, application development and other project tasks necessary to successful implementation of a regional interoperable CAD-to-CAD data sharing and display system will be delayed and may jeopardize grant funding if not completed within the short grant period. The County and other Network Participants may not receive the benefits of a regionally linked computer aided dispatch (CAD) interoperability data sharing and GIS-based common operating picture display system if funding is lost.

### **STEPS FOLLOWING APPROVAL**

Notify Bert Hildebrand, Communications Director and Joyce Wing, Chief Information Officer of approval.

### **ATTACHMENTS**

- Revised Proposal - FEMA Assistance to Firefighters Grant